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Attorney's Docket No.: 06501-088001 / J1-101DP2PCT-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Tasuku Honjo et al.
Serial No. : 09/966,880
Filed : September 28, 2001
Title : NOVEL CYTIDINE DEAMINASE

Art Unit : 1645
Examiner :

Attention: Official Draftsman
Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL OF FORMAL DRAWINGS

Please substitute the enclosed seventeen (17) sheets of formal drawings for the corresponding drawings presently in the application.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 06501-088001.

Respectfully submitted,

Date: May 31, 2002

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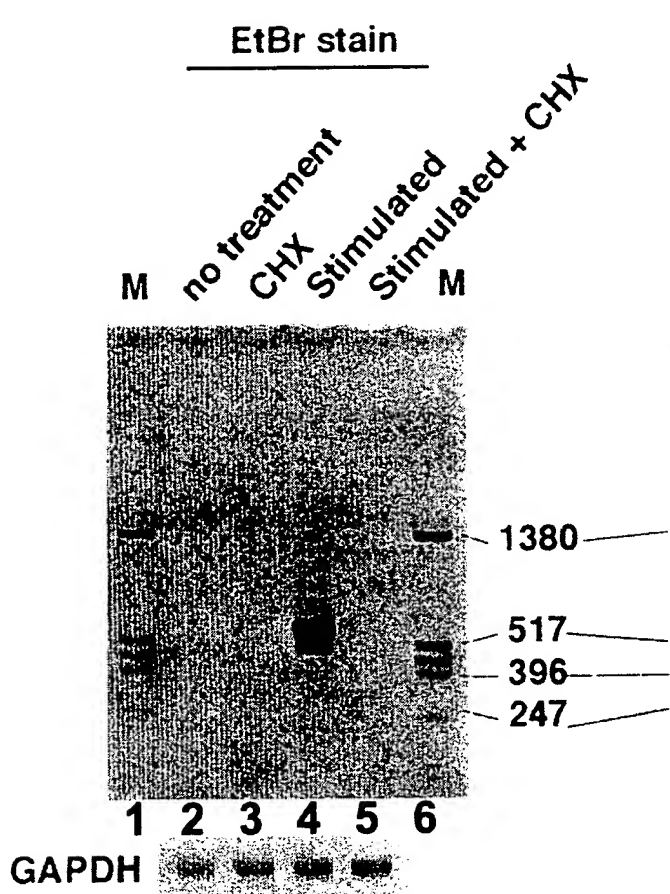


FIG. 1A

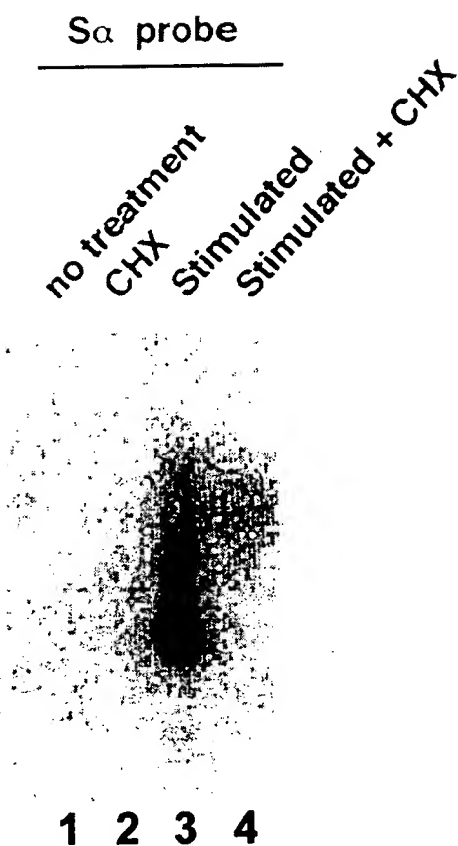


FIG. 1B

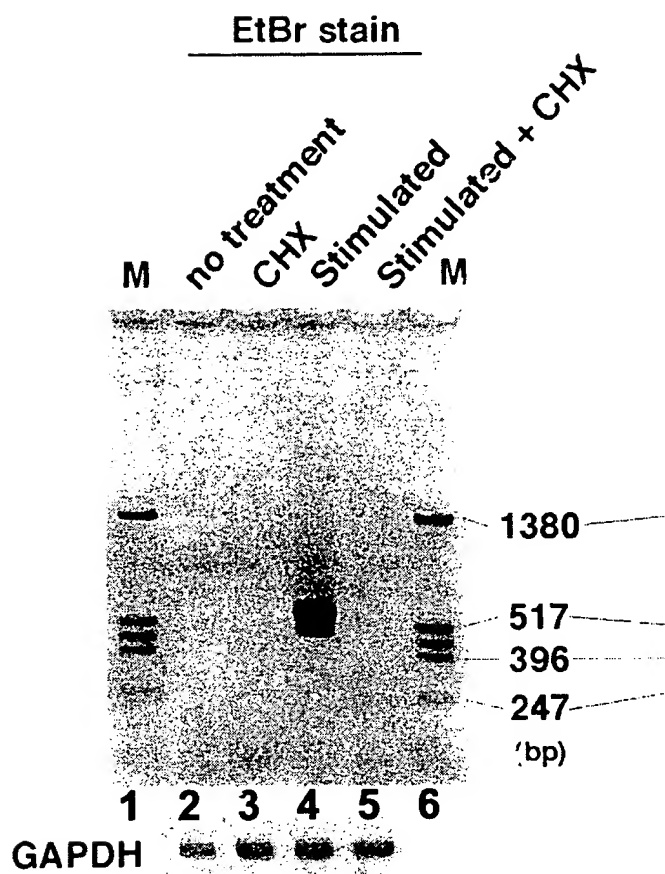


FIG. 2A

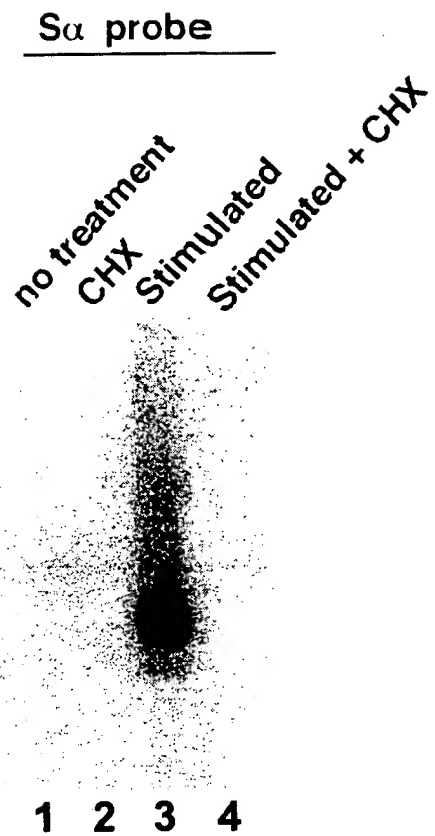


FIG. 2B

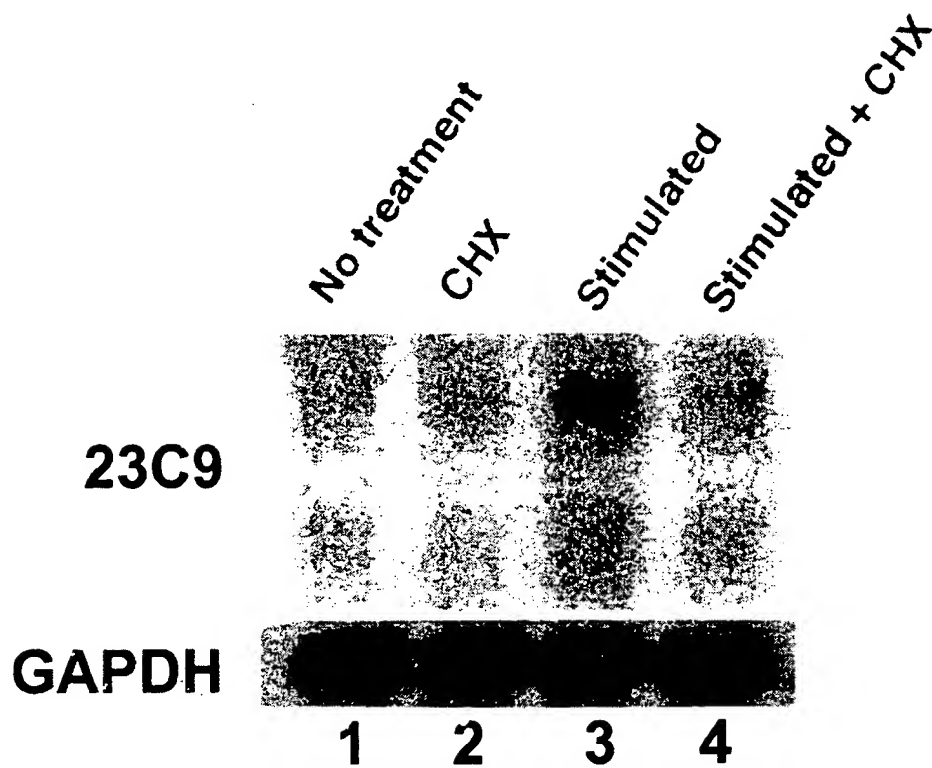


FIG. 3

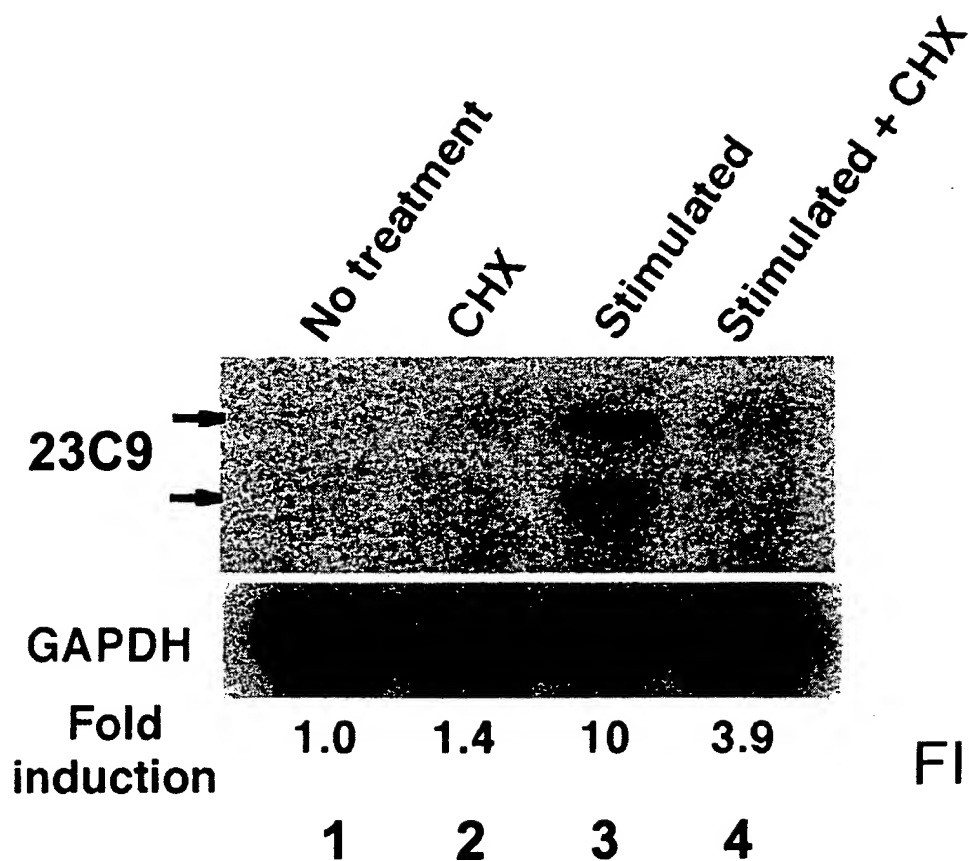


FIG. 4

mAID	1	M--D--SL-L-MK-QKKF-LYHFKNVRW-AKG-RHETYLCTYVVKRRDSATSCSLDFGMLR	50
mAPOBEC-1	1	MSSETGPVAVDPTLRRRIEPHEF-EVFFDPRELKTCCLLYEIN-W-GGRH-SV-WRIITS	55
mAID	51	NKSGCHVELLFL-RYISDWDLDLP-GRCYRVTFNFTSWSPCYDCARHVAEFLRWNPNLSLRI	108
mAPOBEC-1	56	QNTSNHIVEVNFLEKFTTERTYFRPNTRC-SITWFLSWSPCGECRAITTEFLSRHPYVTLFI	114
mAID	109	FTARLYFCEDRKAEPEGLRRLHHRAGVQIGIMTFKDYFYCWNTFVENRRTFKAMEGLHEN	168
mAPOBEC-1	115	YIARLYHHTDQR-NRQGLRDLISSGVTIQIMTEQEQYCYCWNRNFVNYPSPNEAYMPRYPHL	173
mAID	169	SVRL-TRQLRRILPLYE-VDDLDDAFRLGF-----	198
mAPOBEC-1	174	WVKLYVLELYCIIIGLPPCLKILRRKQPQLTFFTTILQICHYQRIPPHLLWATGLK	229

FIG. 5

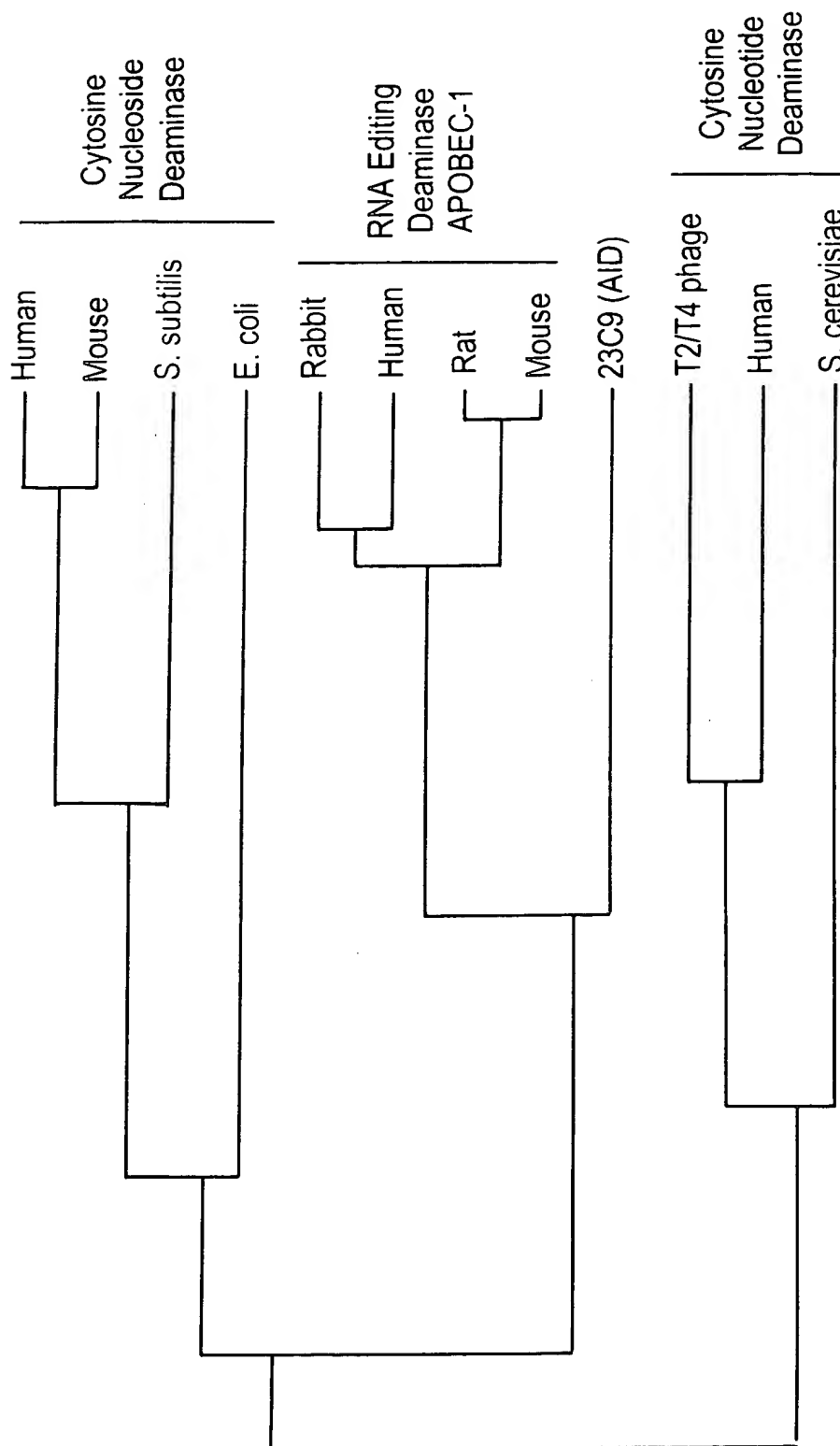


FIG. 6

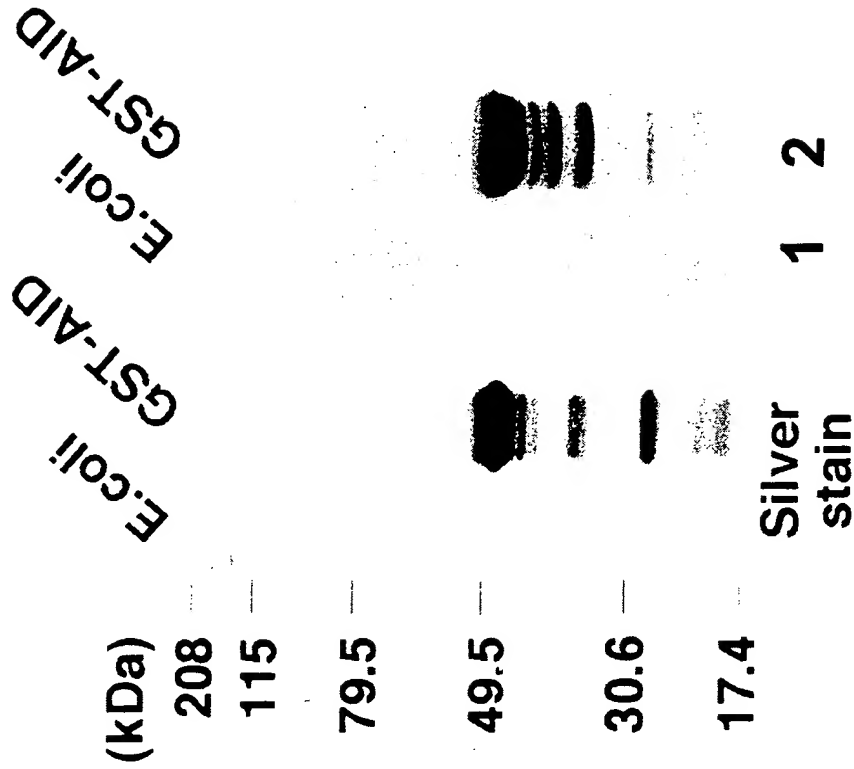
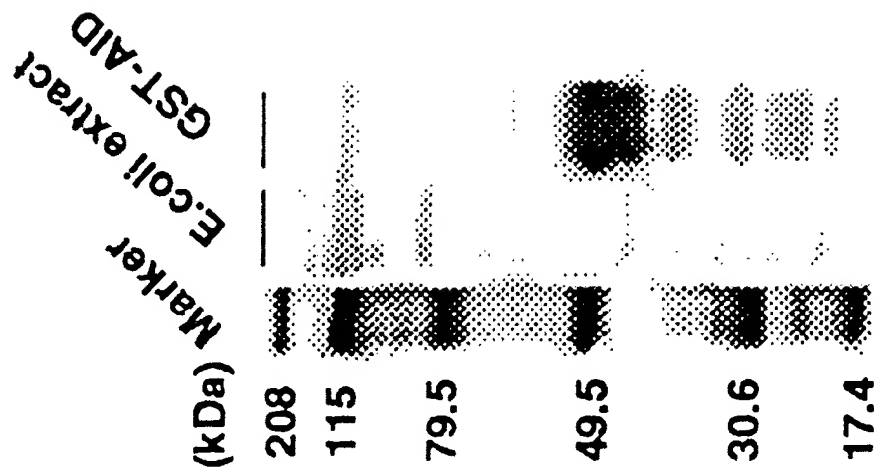


FIG. 8



1 2 3

FIG. 7

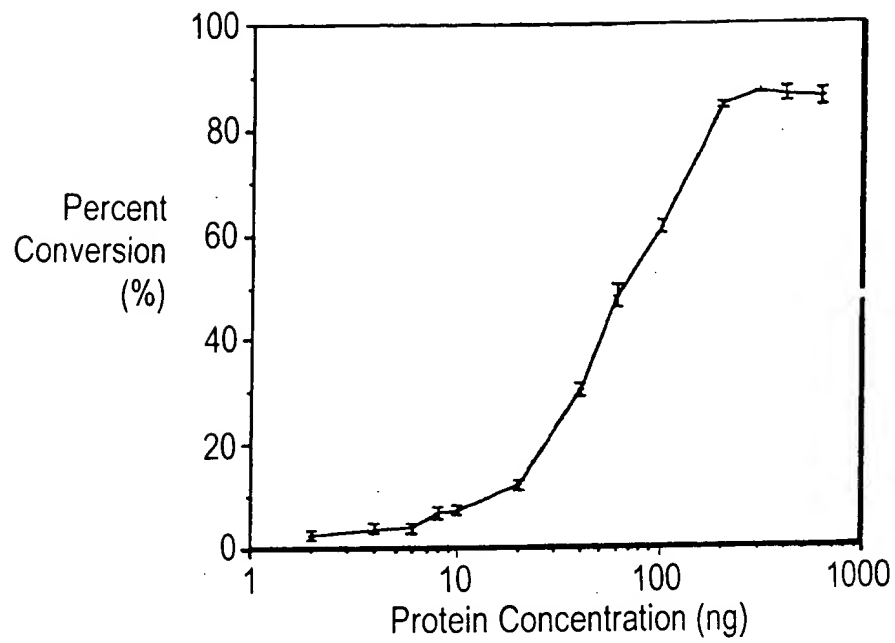


FIG. 9

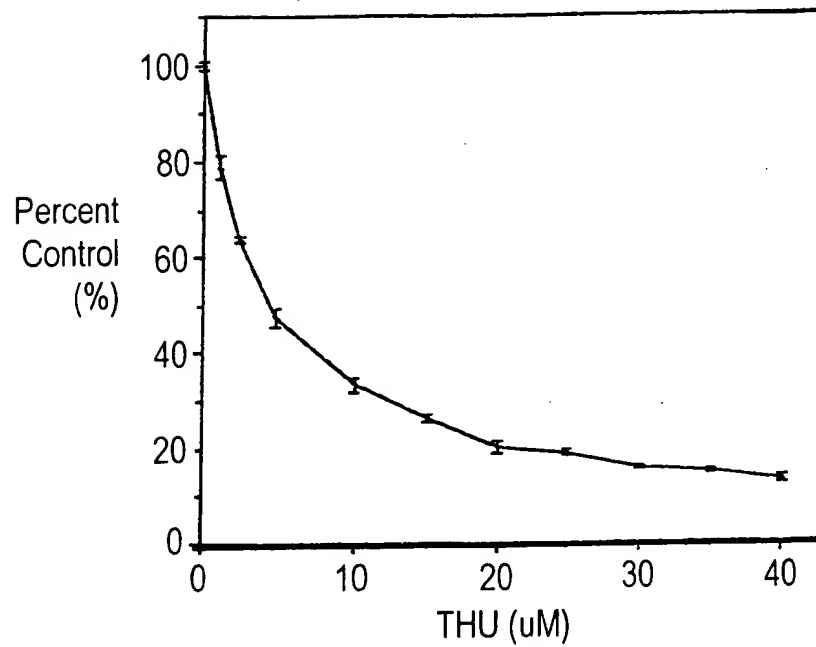


FIG. 10

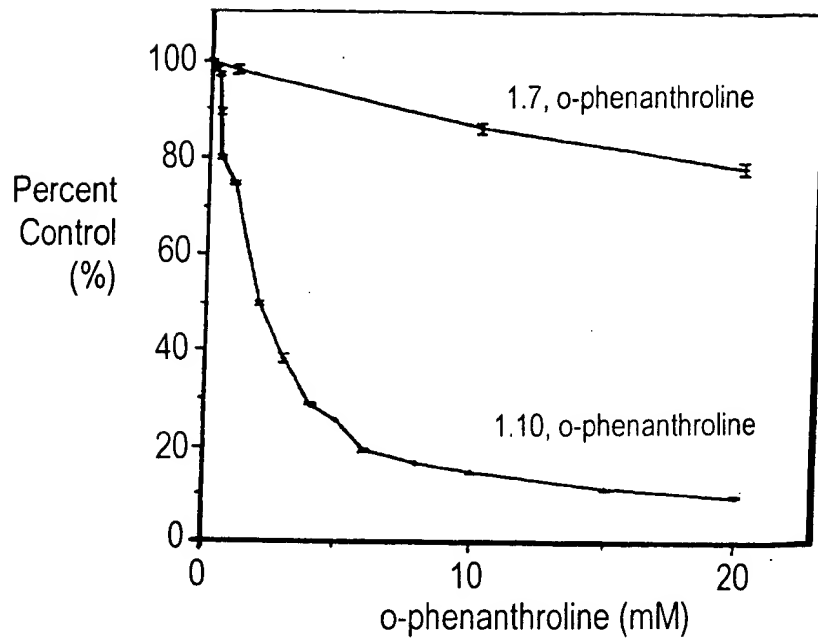


FIG. 11

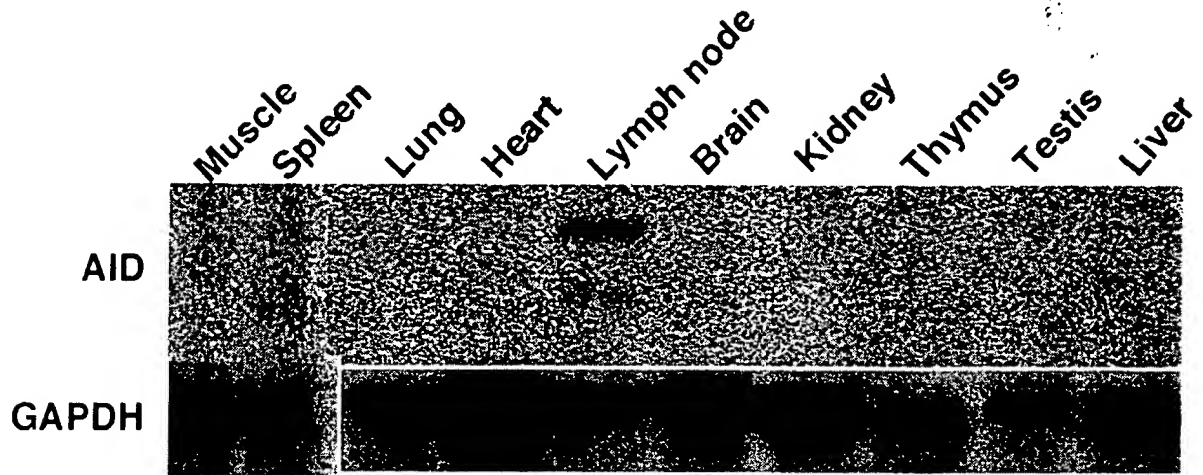


FIG. 12

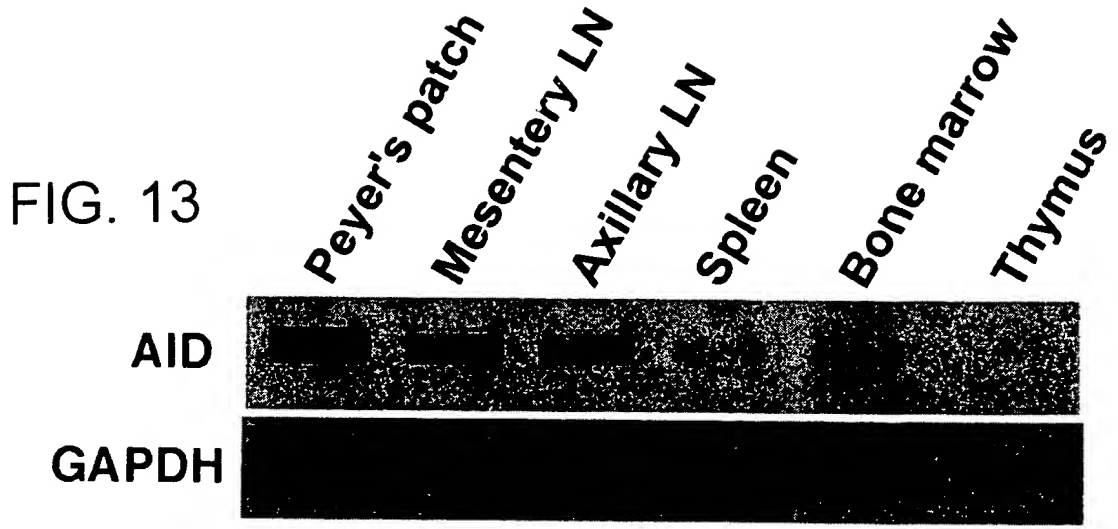


FIG. 13

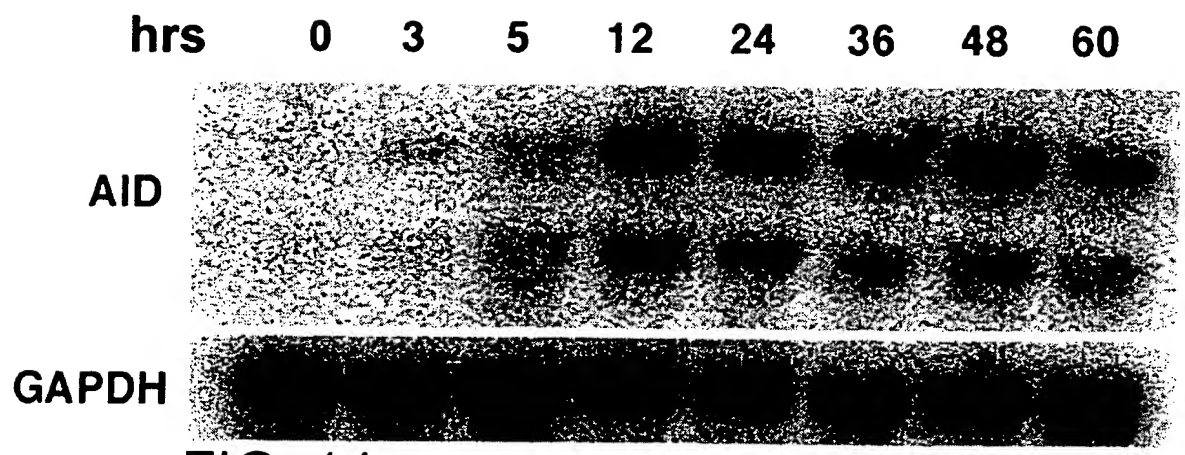


FIG. 14

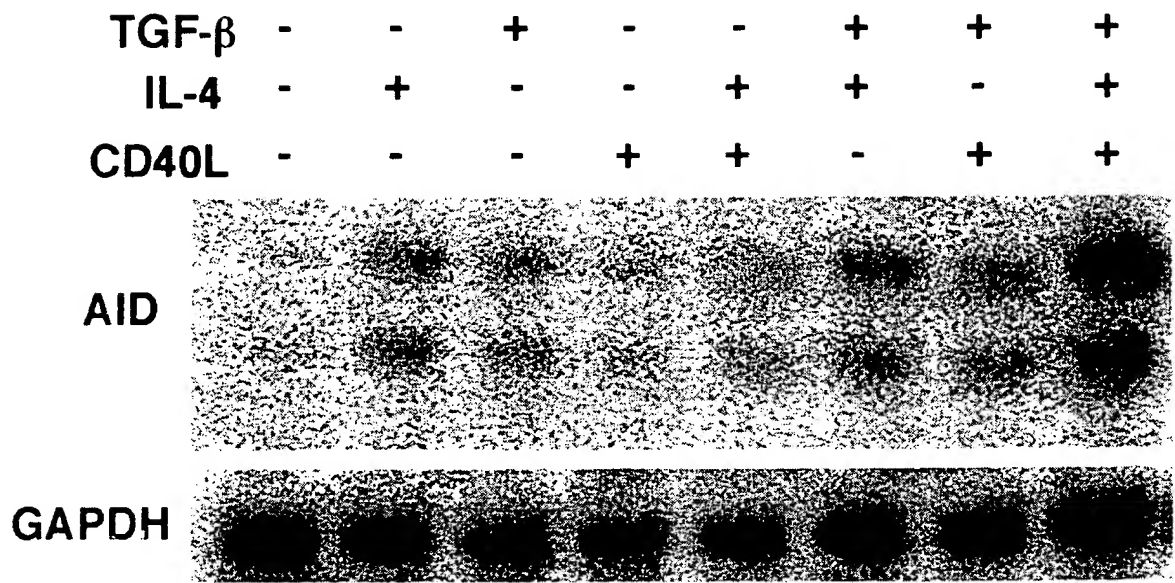


FIG. 15

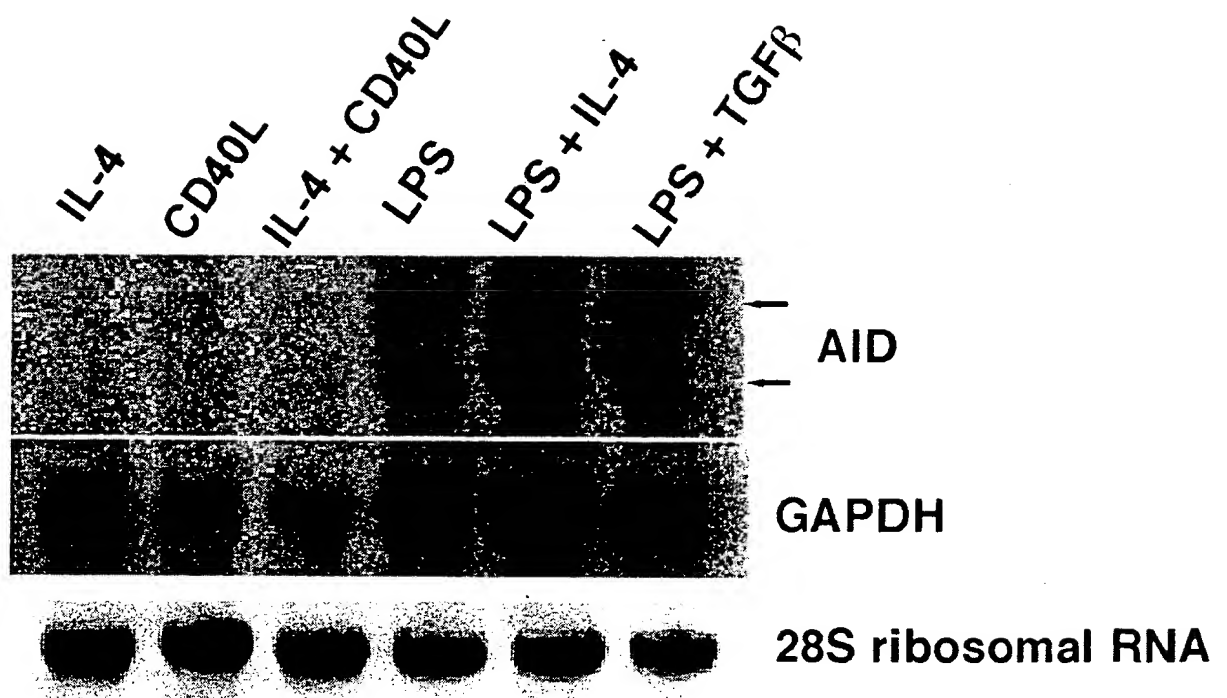


FIG. 16

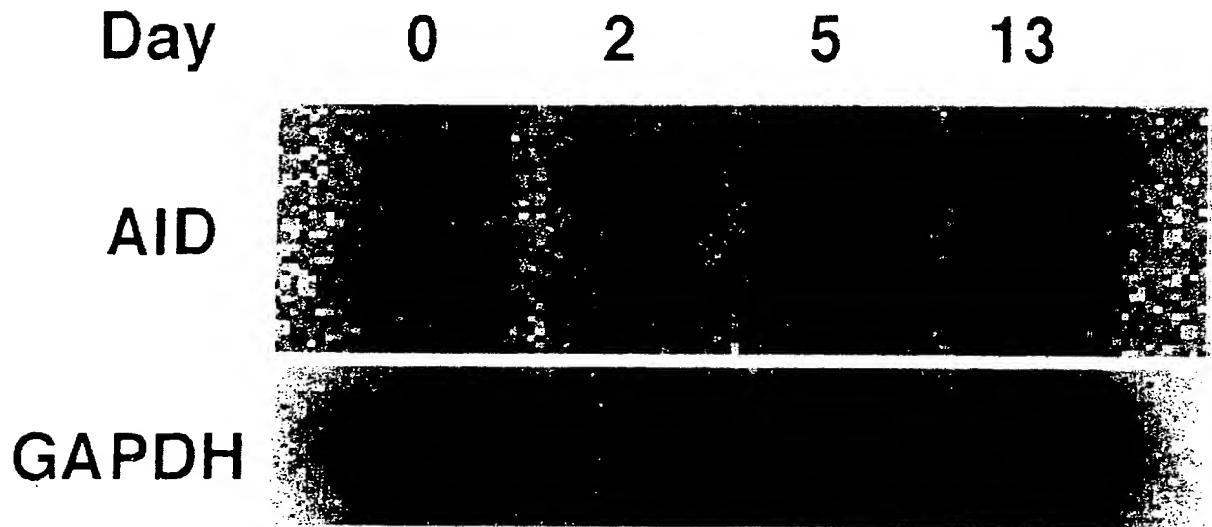


FIG. 17

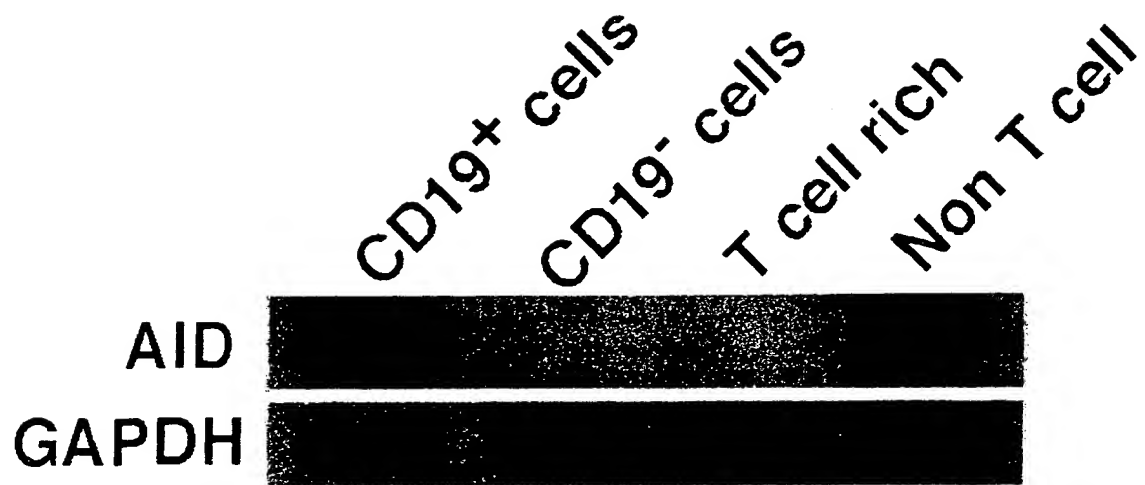


FIG. 18

Day 0



FIG. 19C

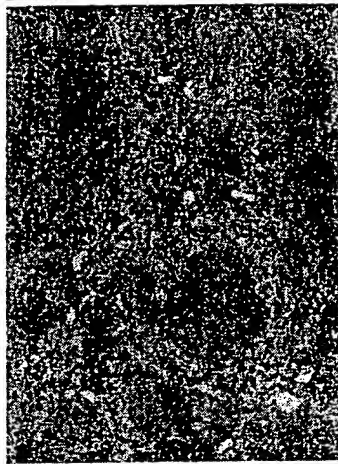
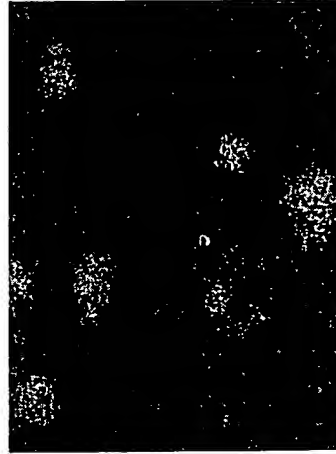


FIG. 19B



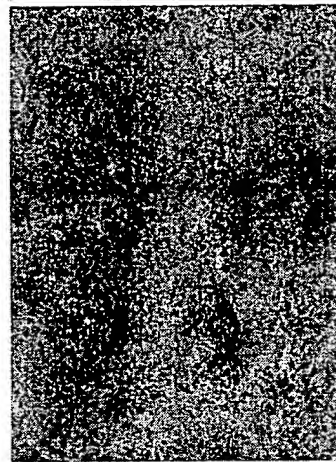
FIG. 19A

Day 5



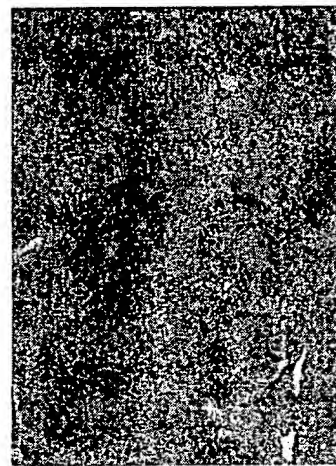
PNA receptor

FIG. 19F



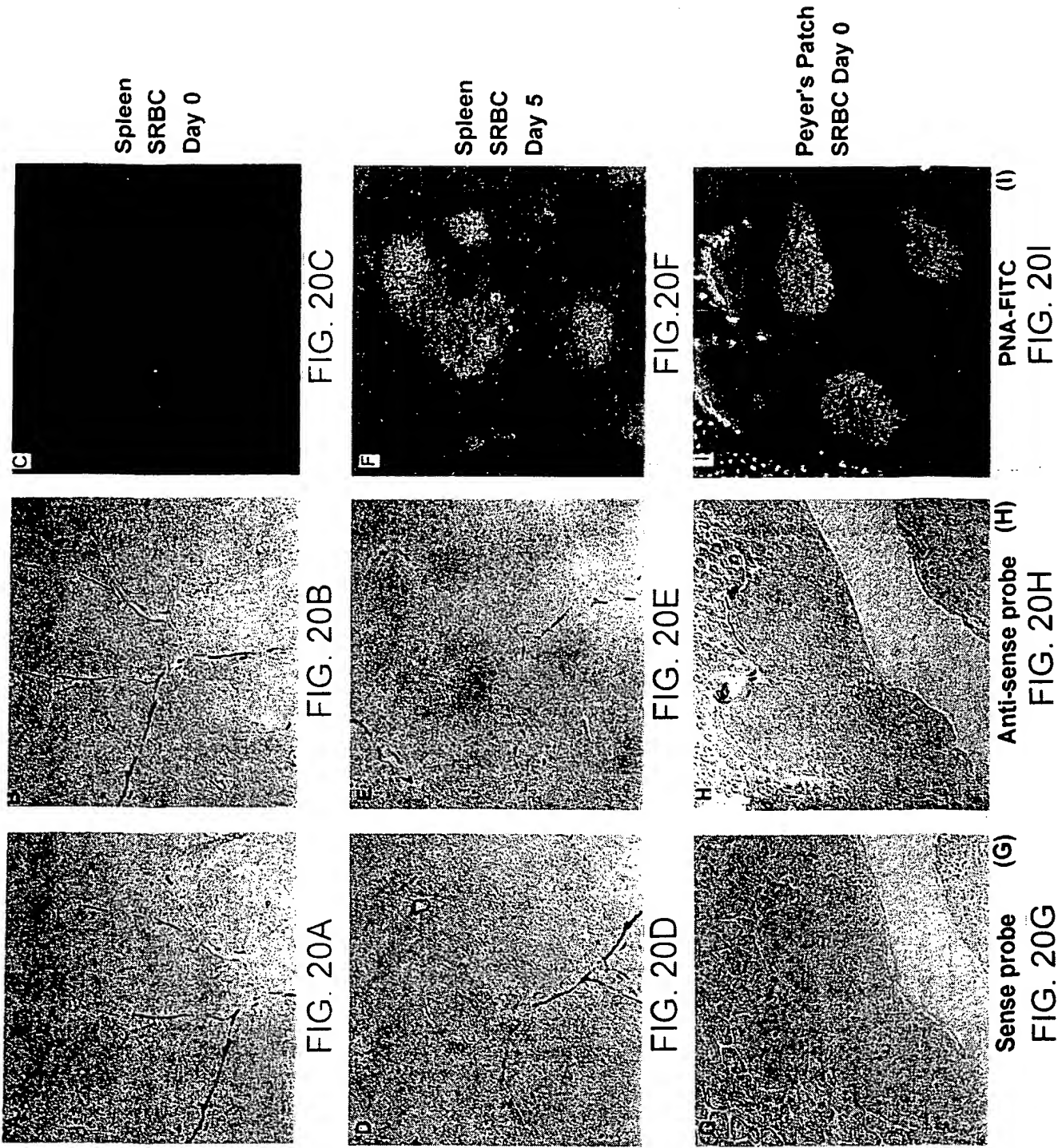
AS probe

FIG. 19E



Sense probe

FIG. 19D



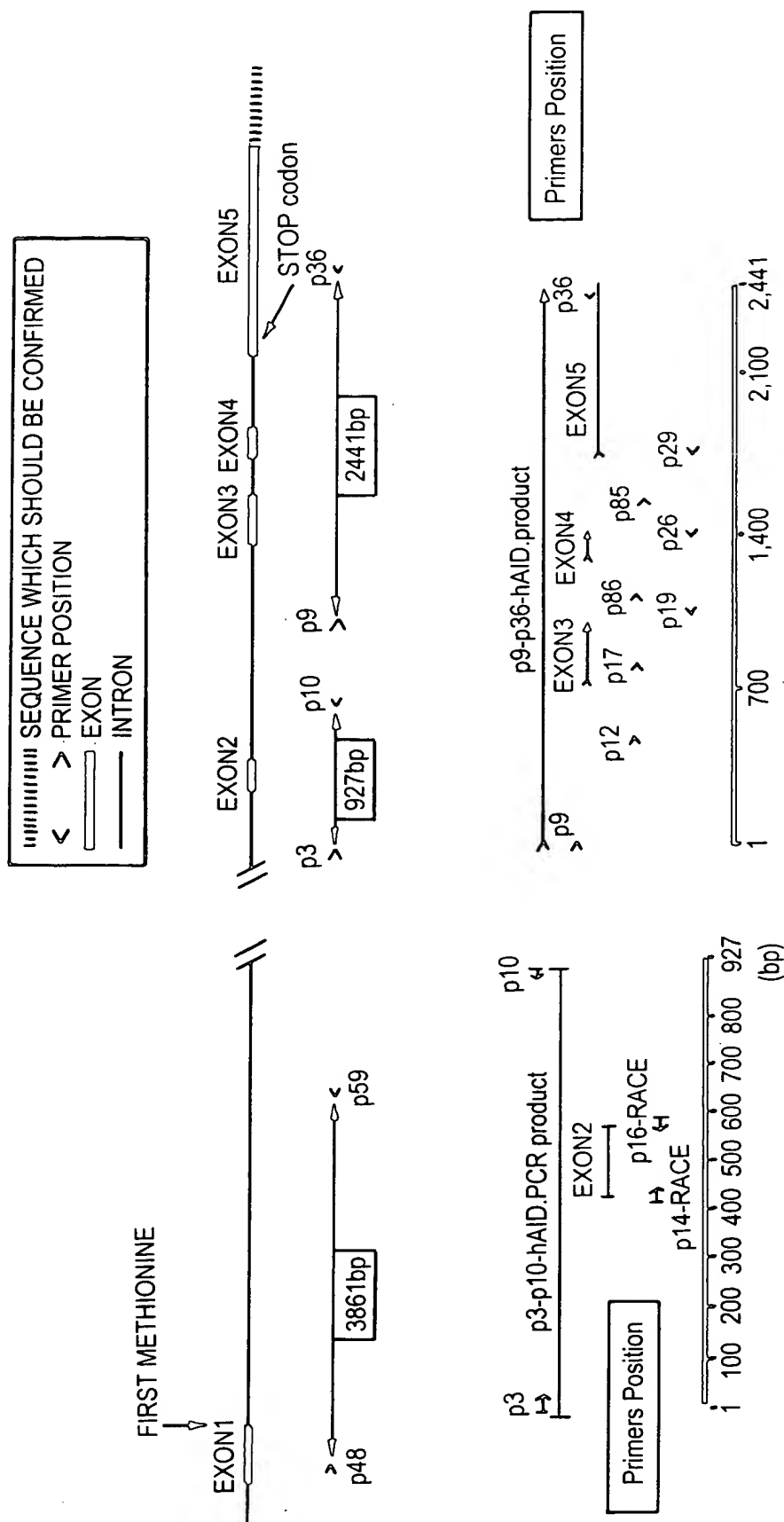


FIG. 21

Human : 1 MDSLLMNRRKFLYQFKNVRWAKGRRETYLCYVVKRRDSATSFSLDFGYLRNKNGCHVELL 60
***** ++*****
Mouse : 1 MDSLLMKQKKFLYBKNVRWAKGRHETLYCYVVKRRDSATSCSLDFGHLRNKSGCHVELL 60

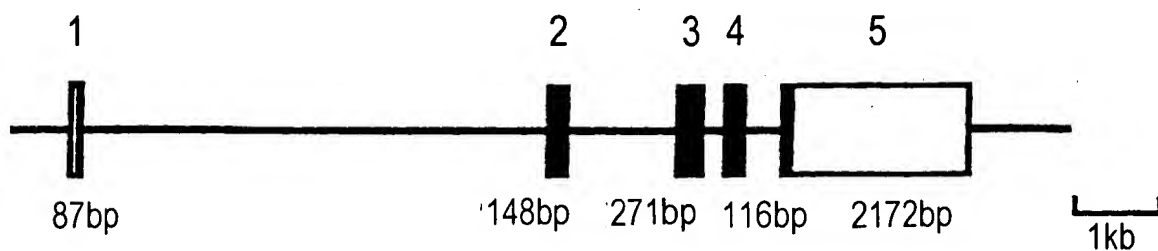
Human : 61 FLRYISDWDLDPGRCYRVTWFTSWSPCYDCARHVADFLRGNPNLRLRIFTARLYFCEDRK 120
*****+*****
Mouse : 61 FLRYISDWDLDPGRCYRVTWFTSWSPCYDCARHVAEFLRWNPNLRLRIFTARLYFCEDRK 120

Human : 121 AEPEGLRRLHRAGVQIAIMTFKDYFCWNTFVENHERTFKAWEGLHENSVRLSRQLRRIL 180
*****+*****
Mouse : 121 AEPEGLRRLHRAGVQIGIMTFKDYFCWNTFVENRERTFKAWEGLHENSVRLTRQLRRIL 180

Human : 181 LPLYEVDDLRLDAFRTLGL 198

Mouse : 181 LPLYEVDDLRLDAFRMLGF 198

FIG. 22



Exons	5' Splice Donor	3' Splice Acceptor	Exons
1	GACAGgt	agCCTCT	2
2	ATAAGgt	agAACGG	3
3	CAAAGgt	agATTAT	4
4	TTTTGgt	agCCCCT	5

FIG. 23

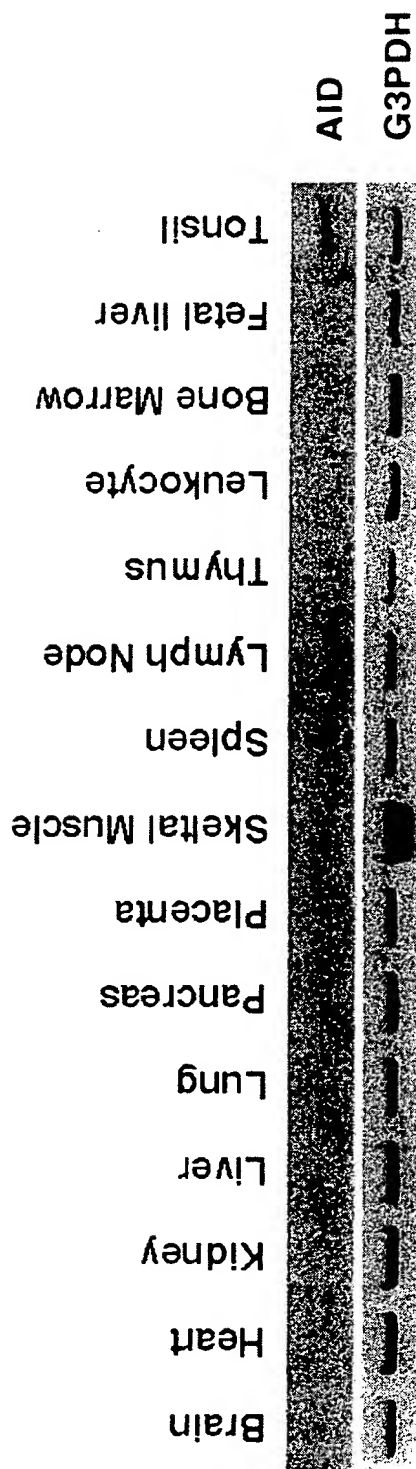


FIG. 24

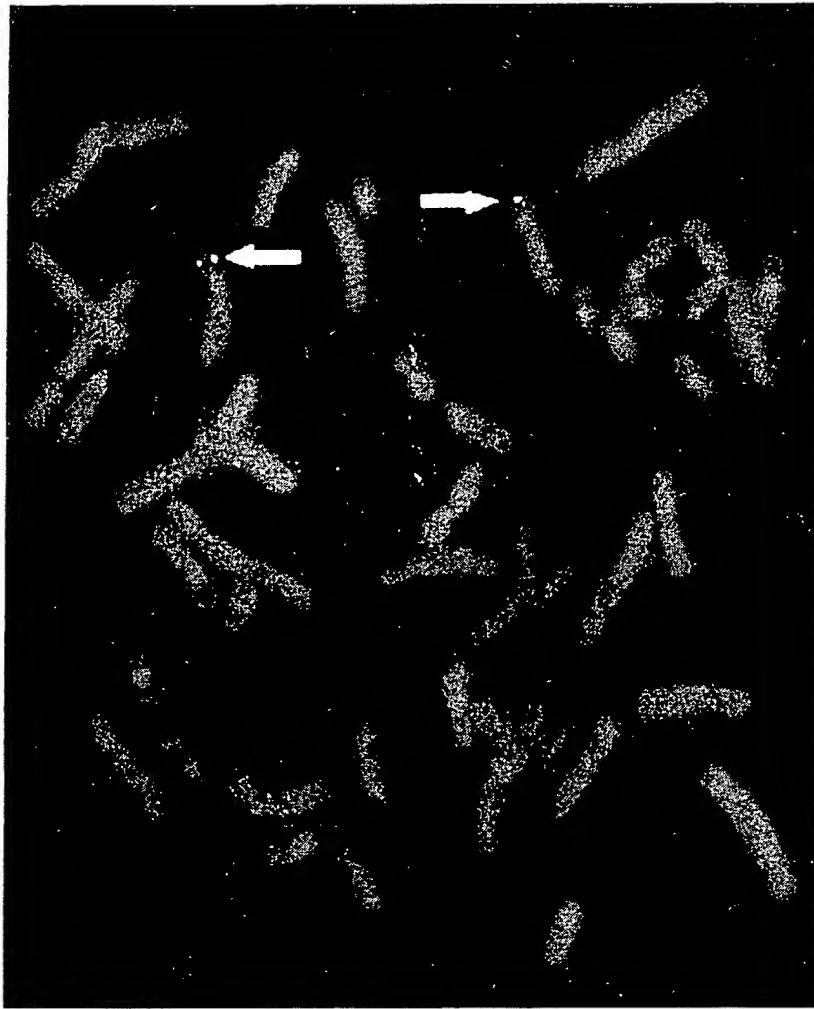


FIG. 25